

ABSTRACT OF THE DISCLOSURE

A cable modem includes a CPU for controlling the entire cable modem, a PGC, for generating a modem signal with adjusted intensity, a transformer for isolating the PGC from a next stage, a low pass filter for filtering off a high-frequency component, and a selecting circuit for selectively transferring the output signal from the low pass filter to a network. In particular, the cable modem of the invention is advantageous for preventing an up-stream signal of the cable modem from transferring to an HFC network and for preventing the entire network to be shut down when an internal circuit operates abnormally.